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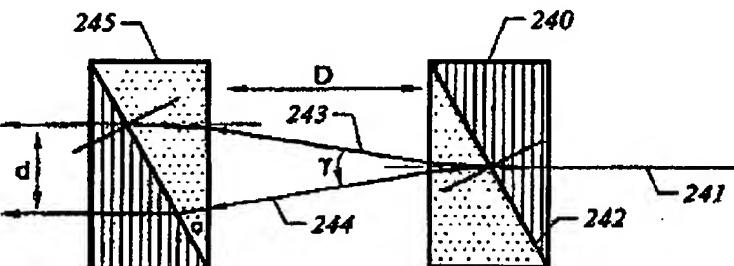
Art Unit 2872

Response to Office Action, September 5th, 2008

In addition, larger devices can be made for use with, for example, high powered lasers or for use in carrying a large array of input lights on a single prism set. This is because birefringent plates of rutile and yttrium vanadate have a maximum aperture size of about 4mm while the prisms of Hesline can have an aperture size of up to 20mm.

Use of the prisms of Hesline to address these problems is considered inventive and non obvious.

2. There is no evidence to suggest that use of a combination of birefringent prisms with parallel optic axes wherein the birefringent prisms have oblique input and output faces, to split an input beam into two parallel output beams, as claimed in the present patent application, has been obvious to Zhao et al., Liu et al. or Pan et al., as asserted by the examiner.



$$d \approx 2D \tan(\gamma/2) = 2D \tan(\arcsin[(n_0 - n_e) \tan(a)])$$

Example: $a = 30^\circ$, $\Delta n = 0.2$, $D = 2\text{mm}$ — $d = 0.4\text{mm}$
 4mm — 0.8mm

FIG. 2

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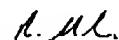
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The optical circulator of Pan, for example, employs a pair of Wollaston prisms to separate an input ray into component rays and does not employ the simpler and less expensive prisms of Hesline. [Note, each Wollaston prism of Pan is composed of two triangular prisms, and the inner prism of each Wollaston prism (i.e. the prisms separated by a large air space) form the prisms of Hesline (see figure 2 of Pan's US-2003/0147136, now US. Pat. 7,362,504 B2, reproduced above). The use of two Wollaston prisms to achieve a similar result to the prisms of Hesline is an unnecessary complication and adds considerable cost to the device.]

I respectfully request that the examiner take these remarks into consideration.

Yours sincerely,



Ray Hesline

INVENTOR